SEQUENCE LISTING

<110> BOUGUELERET; Lydie
      NIKNEJAD; Anne

<120> SECRETED PEPTIDES

<130> 4-33619A/GEP

<140> 10/519,328
<141>

<150> PCT/EP03/007069
<151> 2003-07-02

<150> 60/393,840
<151> 2002-07-02

<160> 10

<170> FastSEQ for Windows Version 4.0

<210> 1
<211> 1821
<212> PRT
<213> Homo sapiens

<220>
<221> PROPEP
<222> (1)...(1821)
<223> Latent transforming growth factor-beta-binding
      protein precursor 2

<221> SIGNAL
<222> (1)...(35)
<223> Predicted by SignalP version 2.0

<221> SITE
<222> (96)...(97)
<223> Dibasic peptidase cleavage site

<221> SITE
<222> (104)...(105)
<223> Dibasic peptidase cleavage site

<221> SITE
<222> (113)...(114)
<223> Dibasic peptidase cleavage site

<400> 1
Met Arg Pro Arg Thr Lys Ala Arg Ser Pro Gly Arg Ala Leu Arg Asn
-35   -30   -25   -20
Pro Trp Arg Gly Phe Leu Pro Leu Thr Leu Ala Leu Phe Val Gly Ala
                -15   -10   -5
Gly His Ala Gln Arg Asp Pro Val Gly Arg Tyr Glu Pro Ala Gly Gly
                1   5   10
Asp Ala Asn Arg Leu Arg Arg Pro Gly Gly Ser Tyr Pro Ala Ala Ala
    15   20   25
Ala Ala Lys Val Tyr Ser Leu Phe Arg Glu Gln Asp Ala Pro Val Ala

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30                      35                      40                      45
Gly Leu Gln Pro Val Glu Arg Ala Gln Pro Gly Trp Gly Ser Pro Arg
                50                      55                      60
Arg Pro Thr Glu Ala Glu Ala Arg Arg Pro Ser Arg Ala Gln Gln Ser
            65                      70                      75
Arg Arg Val Gln Pro Pro Ala Gln Thr Arg Arg Ser Thr Pro Leu Gly
        80                      85                      90
Gln Gln Gln Pro Ala Pro Arg Thr Arg Ala Ala Pro Ala Leu Pro Arg
    95                      100                     105
Leu Gly Thr Pro Gln Arg Ser Gly Ala Ala Pro Pro Thr Pro Pro Arg
110                     115                     120                     125
Gly Arg Leu Thr Gly Arg Asn Val Cys Gly Gln Cys Cys Pro Gly
                130                     135                     140
Trp Thr Thr Ala Asn Ser Thr Asn His Cys Ile Lys Pro Val Cys Glu
                145                     150                     155
Pro Pro Cys Gln Asn Arg Gly Ser Cys Ser Arg Pro Gln Leu Cys Val
            160                     165                     170
Cys Arg Ser Gly Phe Arg Gly Ala Arg Cys Glu Glu Val Ile Pro Asp
    175                     180                     185
Glu Glu Phe Asp Pro Gln Asn Ser Arg Leu Ala Pro Arg Arg Trp Ala
190                     195                     200                     205
Glu Arg Ser Pro Asn Leu Arg Arg Ser Ser Ala Ala Gly Glu Gly Thr
                210                     215                     220
Leu Ala Arg Ala Gln Pro Pro Ala Pro Gln Ser Pro Pro Ala Pro Gln
            225                     230                     235
Ser Pro Pro Ala Gly Thr Leu Ser Gly Leu Ser Gln Thr His Pro Ser
            240                     245                     250
Gln Gln His Val Gly Leu Ser Arg Thr Val Arg Leu His Pro Thr Ala
    255                     260                     265
Thr Ala Ser Ser Gln Leu Ser Ser Asn Ala Leu Pro Pro Gly Pro Gly
270                     275                     280                     285
Leu Glu Gln Arg Asp Gly Thr Gln Gln Ala Val Pro Leu Glu His Pro
            290                     295                     300
Ser Ser Pro Trp Gly Leu Asn Leu Thr Glu Lys Ile Lys Lys Ile Lys
            305                     310                     315
Ile Val Phe Thr Pro Thr Ile Cys Lys Gln Thr Cys Ala Arg Gly His
            320                     325                     330
Cys Ala Asn Ser Cys Glu Arg Gly Asp Thr Thr Thr Leu Tyr Ser Gln
    335                     340                     345
Gly Gly His Gly His Asp Pro Lys Ser Gly Phe Arg Ile Tyr Phe Cys
350                     355                     360                     365
Gln Ile Pro Cys Leu Asn Gly Gly Arg Cys Ile Gly Arg Asp Glu Cys
            370                     375                     380
Trp Cys Pro Ala Asn Ser Thr Gly Lys Phe Cys His Leu Pro Ile Pro
        385                     390                     395
Gln Pro Asp Arg Glu Pro Pro Gly Arg Gly Ser Arg Pro Arg Ala Leu
    400                     405                     410
Leu Glu Ala Pro Leu Lys Gln Ser Thr Phe Thr Leu Pro Leu Ser Asn
    415                     420                     425
Gln Leu Ala Ser Val Asn Pro Ser Leu Val Lys Val His Ile His His
430                     435                     440                     445
Pro Pro Glu Ala Ser Val Gln Ile His Gln Val Ala Gln Val Arg Gly
            450                     455                     460
Gly Val Glu Glu Ala Leu Val Glu Asn Ser Val Glu Thr Arg Pro Pro
        465                     470                     475
Pro Trp Leu Pro Ala Ser Pro Gly His Ser Leu Trp Asp Ser Asn Asn
        480                     485                     490
Ile Pro Ala Arg Ser Gly Glu Pro Pro Arg Pro Leu Pro Pro Ala Ala
    495                     500                     505
Pro Arg Pro Arg Gly Leu Leu Gly Arg Cys Tyr Leu Asn Thr Val Asn
510                     515                     520                     525
```

```
Gly Gln Cys Ala Asn Pro Leu Leu Glu Leu Thr Thr Gln Glu Asp Cys
            530                 535                 540
Cys Gly Ser Val Gly Ala Phe Trp Gly Val Thr Leu Cys Ala Pro Cys
            545                 550                 555
Pro Pro Arg Pro Ala Ser Pro Val Ile Glu Asn Gly Gln Leu Glu Cys
            560                 565                 570
Pro Gln Gly Tyr Lys Arg Leu Asn Leu Thr His Cys Gln Asp Ile Asn
    575                 580                 585
Glu Cys Leu Thr Leu Gly Leu Cys Lys Asp Ala Glu Cys Val Asn Thr
590                 595                 600                 605
Arg Gly Ser Tyr Leu Cys Thr Cys Arg Pro Gly Leu Met Leu Asp Pro
                610                 615                 620
Ser Arg Ser Arg Cys Val Ser Asp Lys Ala Ile Ser Met Leu Gln Gly
                625                 630                 635
Leu Cys Tyr Arg Ser Leu Gly Pro Gly Thr Cys Thr Leu Pro Leu Ala
            640                 645                 650
Gln Arg Ile Thr Lys Gln Ile Cys Cys Cys Ser Arg Val Gly Lys Ala
    655                 660                 665
Trp Gly Ser Glu Cys Glu Lys Cys Pro Leu Pro Gly Thr Glu Ala Phe
670                 675                 680                 685
Arg Glu Ile Cys Pro Ala Gly His Gly Tyr Thr Tyr Ala Ser Ser Asp
                690                 695                 700
Ile Arg Leu Ser Met Arg Lys Ala Glu Glu Glu Glu Leu Ala Arg Pro
                705                 710                 715
Pro Arg Glu Gln Gly Gln Arg Ser Ser Gly Ala Leu Pro Gly Pro Ala
    720                 725                 730
Glu Arg Gln Pro Leu Arg Val Val Thr Asp Thr Trp Leu Glu Ala Gly
    735                 740                 745
Thr Ile Pro Asp Lys Gly Asp Ser Gln Ala Gly Gln Val Thr Thr Ser
750                 755                 760                 765
Val Thr His Ala Pro Ala Trp Val Thr Gly Asn Ala Thr Thr Pro Pro
                770                 775                 780
Met Pro Glu Gln Gly Ile Ala Glu Ile Gln Glu Glu Gln Val Thr Pro
            785                 790                 795
Ser Thr Asp Val Leu Val Thr Leu Ser Thr Pro Gly Ile Asp Arg Cys
            800                 805                 810
Ala Ala Gly Ala Thr Asn Val Cys Gly Pro Gly Thr Cys Val Asn Leu
    815                 820                 825
Pro Asp Gly Tyr Arg Cys Val Cys Ser Pro Gly Tyr Gln Leu His Pro
830                 835                 840                 845
Ser Gln Ala Tyr Cys Thr Asp Asp Asn Glu Cys Leu Arg Asp Pro Cys
                850                 855                 860
Lys Gly Lys Gly Arg Cys Ile Asn Arg Val Gly Ser Tyr Ser Cys Phe
            865                 870                 875
Cys Tyr Pro Gly Tyr Thr Leu Ala Thr Ser Gly Ala Thr Gln Glu Cys
    880                 885                 890
Gln Asp Ile Asn Glu Cys Glu Gln Pro Gly Val Cys Ser Gly Gly Gln
    895                 900                 905
Cys Thr Asn Thr Glu Gly Ser Tyr His Cys Glu Cys Asp Gln Gly Tyr
910                 915                 920                 925
Ile Met Val Arg Lys Gly His Cys Gln Asp Ile Asn Glu Cys Arg His
                930                 935                 940
Pro Gly Thr Cys Pro Asp Gly Arg Cys Val Asn Ser Pro Gly Ser Tyr
            945                 950                 955
Thr Cys Leu Ala Cys Glu Glu Gly Tyr Arg Gly Gln Ser Gly Ser Cys
            960                 965                 970
Val Asp Val Asn Glu Cys Leu Thr Pro Gly Val Cys Ala His Gly Lys
    975                 980                 985
Cys Thr Asn Leu Glu Gly Ser Phe Arg Cys Ser Cys Glu Gln Gly Tyr
990                 995                 1000                1005
Glu Val Thr Ser Asp Glu Lys Gly Cys Gln Asp Val Asp Glu Cys Ala
```

```
                  1010                    1015                    1020
Ser Arg Ala Ser Cys Pro Thr Gly Leu Cys Leu Asn Thr Glu Gly Ser
                  1025                    1030                    1035
Phe Ala Cys Ser Ala Cys Glu Asn Gly Tyr Trp Val Asn Glu Asp Gly
             1040                    1045                    1050
Thr Ala Cys Glu Asp Leu Asp Glu Cys Ala Phe Pro Gly Val Cys Pro
        1055                    1060                    1065
Ser Gly Val Cys Thr Asn Thr Ala Gly Ser Phe Ser Cys Lys Asp Cys
1070                    1075                    1080                    1085
Asp Gly Gly Tyr Arg Pro Ser Pro Leu Gly Asp Ser Cys Glu Asp Val
                  1090                    1095                    1100
Asp Glu Cys Glu Asp Pro Gln Ser Ser Cys Leu Gly Gly Glu Cys Lys
             1105                    1110                    1115
Asn Thr Val Gly Ser Tyr Gln Cys Leu Cys Pro Gln Gly Phe Gln Leu
        1120                    1125                    1130
Ala Asn Gly Thr Val Cys Glu Asp Val Asn Glu Cys Met Gly Glu Glu
      1135                    1140                    1145
His Cys Ala Pro His Gly Glu Cys Leu Asn Ser His Gly Ser Phe Phe
1150                    1155                    1160                    1165
Cys Leu Cys Ala Pro Gly Phe Val Ser Ala Glu Gly Gly Thr Ser Cys
                  1170                    1175                    1180
Gln Asp Val Asp Glu Cys Ala Thr Thr Asp Pro Cys Val Gly Gly His
             1185                    1190                    1195
Cys Val Asn Thr Glu Gly Ser Phe Asn Cys Leu Cys Glu Thr Gly Phe
        1200                    1205                    1210
Gln Pro Ser Pro Glu Ser Gly Glu Cys Val Asp Ile Asp Glu Cys Glu
      1215                    1220                    1225
Asp Tyr Gly Asp Pro Val Cys Gly Thr Trp Lys Cys Glu Asn Ser Pro
1230                    1235                    1240                    1245
Gly Ser Tyr Arg Cys Val Leu Gly Cys Gln Pro Gly Phe His Met Ala
                  1250                    1255                    1260
Pro Asn Gly Asp Cys Ile Asp Ile Asp Glu Cys Ala Asn Asp Thr Met
             1265                    1270                    1275
Cys Gly Ser His Gly Phe Cys Asp Asn Thr Asp Gly Ser Phe Arg Cys
        1280                    1285                    1290
Leu Cys Asp Gln Gly Phe Glu Ile Ser Pro Ser Gly Trp Asp Cys Val
      1295                    1300                    1305
Asp Val Asn Glu Cys Glu Leu Met Leu Ala Val Cys Gly Ala Ala Leu
1310                    1315                    1320                    1325
Cys Glu Asn Val Glu Gly Ser Phe Leu Cys Leu Cys Ala Ser Asp Leu
                  1330                    1335                    1340
Glu Glu Tyr Asp Ala Gln Glu Gly His Cys Arg Pro Arg Gly Ala Gly
             1345                    1350                    1355
Gly Gln Ser Met Ser Glu Ala Pro Thr Gly Asp His Ala Pro Ala Pro
        1360                    1365                    1370
Thr Arg Met Asp Cys Tyr Ser Gly Gln Lys Gly His Ala Pro Cys Ser
      1375                    1380                    1385
Ser Val Leu Gly Arg Asn Thr Thr Gln Ala Glu Cys Cys Cys Thr Gln
1390                    1395                    1400                    1405
Gly Ala Ser Trp Gly Asp Ala Cys Asp Leu Cys Pro Ser Glu Asp Ser
                  1410                    1415                    1420
Ala Glu Phe Ser Glu Ile Cys Pro Ser Gly Lys Gly Tyr Ile Pro Val
             1425                    1430                    1435
Glu Gly Ala Trp Thr Phe Gly Gln Thr Met Tyr Thr Asp Ala Asp Glu
        1440                    1445                    1450
Cys Val Ile Phe Gly Pro Gly Leu Cys Pro Asn Gly Arg Cys Leu Asn
      1455                    1460                    1465
Thr Val Pro Gly Tyr Val Cys Leu Cys Asn Pro Gly Phe His Tyr Asp
1470                    1475                    1480                    1485
Ala Ser His Lys Lys Cys Glu Asp His Asp Glu Cys Gln Asp Leu Ala
                  1490                    1495                    1500
```

```
Cys Glu Asn Gly Glu Cys Val Asn Thr Glu Gly Ser Phe His Cys Phe
          1505                1510                1515
Cys Ser Pro Pro Leu Thr Leu Asp Leu Ser Gln Gln Arg Cys Met Asn
          1520                1525                1530
Ser Thr Ser Ser Thr Glu Asp Leu Pro Asp His Asp Ile His Met Asp
          1535                1540                1545
Ile Cys Trp Lys Lys Val Thr Asn Asp Val Cys Ser Glu Pro Leu Arg
1550                1555                1560                1565
Gly His Arg Thr Thr Tyr Thr Glu Cys Cys Cys Gln Asp Gly Glu Ala
          1570                1575                1580
Trp Ser Gln Gln Cys Ala Leu Cys Pro Pro Arg Ser Ser Glu Val Tyr
          1585                1590                1595
Ala Gln Leu Cys Asn Val Ala Arg Ile Glu Ala Glu Arg Glu Ala Gly
          1600                1605                1610
Val His Phe Arg Pro Gly Tyr Glu Tyr Gly Pro Gly Pro Asp Asp Leu
          1615                1620                1625
His Tyr Ser Ile Tyr Gly Pro Asp Gly Ala Pro Phe Tyr Asn Tyr Leu
1630                1635                1640                1645
Gly Pro Glu Asp Thr Val Pro Glu Pro Ala Phe Pro Asn Thr Ala Gly
          1650                1655                1660
His Ser Ala Asp Arg Thr Pro Ile Leu Glu Ser Pro Leu Gln Pro Ser
          1665                1670                1675
Glu Leu Gln Pro His Tyr Val Ala Ser His Pro Glu Pro Pro Ala Gly
          1680                1685                1690
Phe Glu Gly Leu Gln Ala Glu Glu Cys Gly Ile Leu Asn Gly Cys Glu
          1695                1700                1705
Asn Gly Arg Cys Val Arg Val Arg Glu Gly Tyr Thr Cys Asp Cys Phe
1710                1715                1720                1725
Glu Gly Phe Gln Leu Asp Ala Ala His Met Ala Cys Val Asp Val Asn
          1730                1735                1740
Glu Cys Asp Asp Leu Asn Gly Pro Ala Val Leu Cys Val His Gly Tyr
          1745                1750                1755
Cys Glu Asn Thr Glu Gly Ser Tyr Arg Cys His Cys Ser Pro Gly Tyr
          1760                1765                1770
Val Ala Glu Ala Gly Pro Pro His Cys Thr Ala Lys Glu
          1775                1780                1785


<210> 2
<211> 1786
<212> PRT
<213> Homo sapiens

<400> 2
Gln Arg Asp Pro Val Gly Arg Tyr Glu Pro Ala Gly Gly Asp Ala Asn
1                 5                 10                15
Arg Leu Arg Arg Pro Gly Gly Ser Tyr Pro Ala Ala Ala Ala Ala Lys
          20                25                30
Val Tyr Ser Leu Phe Arg Glu Gln Asp Ala Pro Val Ala Gly Leu Gln
          35                40                45
Pro Val Glu Arg Ala Gln Pro Gly Trp Gly Ser Pro Arg Arg Pro Thr
50                55                60
Glu Ala Glu Ala Arg Arg Pro Ser Arg Ala Gln Ser Arg Arg Val
65                70                75                80
Gln Pro Pro Ala Gln Thr Arg Arg Ser Thr Pro Leu Gly Gln Gln Gln
          85                90                95
Pro Ala Pro Arg Thr Arg Ala Ala Pro Ala Leu Pro Arg Leu Gly Thr
          100               105               110
Pro Gln Arg Ser Gly Ala Ala Pro Pro Thr Pro Pro Arg Gly Arg Leu
          115               120               125
Thr Gly Arg Asn Val Cys Gly Gly Gln Cys Cys Pro Gly Trp Thr Thr
```

```
          130                    135                    140
Ala Asn Ser Thr Asn His Cys Ile Lys Pro Val Cys Glu Pro Pro Cys
145                    150                    155                    160
Gln Asn Arg Gly Ser Cys Ser Arg Pro Gln Leu Cys Val Cys Arg Ser
                165                    170                    175
Gly Phe Arg Gly Ala Arg Cys Glu Glu Val Ile Pro Asp Glu Glu Phe
                180                    185                    190
Asp Pro Gln Asn Ser Arg Leu Ala Pro Arg Arg Trp Ala Glu Arg Ser
                195                    200                    205
Pro Asn Leu Arg Arg Ser Ser Ala Ala Gly Glu Gly Thr Leu Ala Arg
          210                    215                    220
Ala Gln Pro Pro Ala Pro Gln Ser Pro Pro Ala Pro Gln Ser Pro Pro
225                    230                    235                    240
Ala Gly Thr Leu Ser Gly Leu Ser Gln Thr His Pro Ser Gln Gln His
                245                    250                    255
Val Gly Leu Ser Arg Thr Val Arg Leu His Pro Thr Ala Thr Ala Ser
                260                    265                    270
Ser Gln Leu Ser Ser Asn Ala Leu Pro Pro Gly Pro Gly Leu Glu Gln
          275                    280                    285
Arg Asp Gly Thr Gln Gln Ala Val Pro Leu Glu His Pro Ser Ser Pro
          290                    295                    300
Trp Gly Leu Asn Leu Thr Glu Lys Ile Lys Lys Ile Lys Ile Val Phe
305                    310                    315                    320
Thr Pro Thr Ile Cys Lys Gln Thr Cys Ala Arg Gly His Cys Ala Asn
                325                    330                    335
Ser Cys Glu Arg Gly Asp Thr Thr Thr Leu Tyr Ser Gln Gly Gly His
                340                    345                    350
Gly His Asp Pro Lys Ser Gly Phe Arg Ile Tyr Phe Cys Gln Ile Pro
          355                    360                    365
Cys Leu Asn Gly Gly Arg Cys Ile Gly Arg Asp Glu Cys Trp Cys Pro
          370                    375                    380
Ala Asn Ser Thr Gly Lys Phe Cys His Leu Pro Ile Pro Gln Pro Asp
385                    390                    395                    400
Arg Glu Pro Pro Gly Arg Gly Ser Arg Pro Arg Ala Leu Leu Glu Ala
                405                    410                    415
Pro Leu Lys Gln Ser Thr Phe Thr Leu Pro Leu Ser Asn Gln Leu Ala
                420                    425                    430
Ser Val Asn Pro Ser Leu Val Lys Val His Ile His His Pro Pro Glu
                435                    440                    445
Ala Ser Val Gln Ile His Gln Val Ala Gln Val Arg Gly Gly Val Glu
                450                    455                    460
Glu Ala Leu Val Glu Asn Ser Val Glu Thr Arg Pro Pro Pro Trp Leu
465                    470                    475                    480
Pro Ala Ser Pro Gly His Ser Leu Trp Asp Ser Asn Asn Ile Pro Ala
                485                    490                    495
Arg Ser Gly Glu Pro Pro Arg Pro Leu Pro Pro Ala Ala Pro Arg Pro
                500                    505                    510
Arg Gly Leu Leu Gly Arg Cys Tyr Leu Asn Thr Val Asn Gly Gln Cys
                515                    520                    525
Ala Asn Pro Leu Leu Glu Leu Thr Thr Gln Glu Asp Cys Cys Gly Ser
          530                    535                    540
Val Gly Ala Phe Trp Gly Val Thr Leu Cys Ala Pro Cys Pro Pro Arg
545                    550                    555                    560
Pro Ala Ser Pro Val Ile Glu Asn Gly Gln Leu Glu Cys Pro Gln Gly
                565                    570                    575
Tyr Lys Arg Leu Asn Leu Thr His Cys Gln Asp Ile Asn Glu Cys Leu
                580                    585                    590
Thr Leu Gly Leu Cys Lys Asp Ala Glu Cys Val Asn Thr Arg Gly Ser
          595                    600                    605
Tyr Leu Cys Thr Cys Arg Pro Gly Leu Met Leu Asp Pro Ser Arg Ser
          610                    615                    620
```

```
Arg Cys Val Ser Asp Lys Ala Ile Ser Met Leu Gln Gly Leu Cys Tyr
625             630                 635                         640
Arg Ser Leu Gly Pro Gly Thr Cys Thr Leu Pro Leu Ala Gln Arg Ile
            645                 650                     655
Thr Lys Gln Ile Cys Cys Cys Ser Arg Val Gly Lys Ala Trp Gly Ser
            660                 665                 670
Glu Cys Glu Lys Cys Pro Leu Pro Gly Thr Glu Ala Phe Arg Glu Ile
    675                 680                 685
Cys Pro Ala Gly His Gly Tyr Thr Tyr Ala Ser Ser Asp Ile Arg Leu
    690                 695                 700
Ser Met Arg Lys Ala Glu Glu Glu Leu Ala Arg Pro Pro Arg Glu
705                 710                 715                     720
Gln Gly Gln Arg Ser Ser Gly Ala Leu Pro Gly Pro Ala Glu Arg Gln
            725                 730                 735
Pro Leu Arg Val Val Thr Asp Thr Trp Leu Glu Ala Gly Thr Ile Pro
            740                 745                 750
Asp Lys Gly Asp Ser Gln Ala Gly Gln Val Thr Thr Ser Val Thr His
            755                 760                 765
Ala Pro Ala Trp Val Thr Gly Asn Ala Thr Thr Pro Pro Met Pro Glu
    770                 775                 780
Gln Gly Ile Ala Glu Ile Gln Glu Glu Gln Val Thr Pro Ser Thr Asp
785                 790                 795                     800
Val Leu Val Thr Leu Ser Thr Pro Gly Ile Asp Arg Cys Ala Ala Gly
            805                 810                 815
Ala Thr Asn Val Cys Gly Pro Gly Thr Cys Val Asn Leu Pro Asp Gly
            820                 825                 830
Tyr Arg Cys Val Cys Ser Pro Gly Tyr Gln Leu His Pro Ser Gln Ala
    835                 840                 845
Tyr Cys Thr Asp Asp Asn Glu Cys Leu Arg Asp Pro Cys Lys Gly Lys
    850                 855                 860
Gly Arg Cys Ile Asn Arg Val Gly Ser Tyr Ser Cys Phe Cys Tyr Pro
865                 870                 875                     880
Gly Tyr Thr Leu Ala Thr Ser Gly Ala Thr Gln Glu Cys Gln Asp Ile
            885                 890                 895
Asn Glu Cys Glu Gln Pro Gly Val Cys Ser Gly Gly Gln Cys Thr Asn
            900                 905                 910
Thr Glu Gly Ser Tyr His Cys Glu Cys Asp Gln Gly Tyr Ile Met Val
            915                 920                 925
Arg Lys Gly His Cys Gln Asp Ile Asn Glu Cys Arg His Pro Gly Thr
    930                 935                 940
Cys Pro Asp Gly Arg Cys Val Asn Ser Pro Gly Ser Tyr Thr Cys Leu
945                 950                 955                     960
Ala Cys Glu Glu Gly Tyr Arg Gly Gln Ser Gly Ser Cys Val Asp Val
            965                 970                 975
Asn Glu Cys Leu Thr Pro Gly Val Cys Ala His Gly Lys Cys Thr Asn
            980                 985                 990
Leu Glu Gly Ser Phe Arg Cys Ser Cys Glu Gln Gly Tyr Glu Val Thr
    995                 1000                1005
Ser Asp Glu Lys Gly Cys Gln Asp Val Asp Glu Cys Ala Ser Arg Ala
    1010                1015                1020
Ser Cys Pro Thr Gly Leu Cys Leu Asn Thr Glu Gly Ser Phe Ala Cys
1025                1030                1035                    1040
Ser Ala Cys Glu Asn Gly Tyr Trp Val Asn Glu Asp Gly Thr Ala Cys
            1045                1050                1055
Glu Asp Leu Asp Glu Cys Ala Phe Pro Gly Val Cys Pro Ser Gly Val
            1060                1065                1070
Cys Thr Asn Thr Ala Gly Ser Phe Ser Cys Lys Asp Cys Asp Gly Gly
            1075                1080                1085
Tyr Arg Pro Ser Pro Leu Gly Asp Ser Cys Glu Asp Val Asp Glu Cys
    1090                1095                1100
Glu Asp Pro Gln Ser Ser Cys Leu Gly Gly Glu Cys Lys Asn Thr Val
```

```
       1105                1110                    1115                    1120
Gly Ser Tyr Gln Cys Leu Cys Pro Gln Gly Phe Gln Leu Ala Asn Gly
                    1125                1130                    1135
Thr Val Cys Glu Asp Val Asn Glu Cys Met Gly Glu Glu His Cys Ala
               1140                1145                    1150
Pro His Gly Glu Cys Leu Asn Ser His Gly Ser Phe Phe Cys Leu Cys
          1155                1160                    1165
Ala Pro Gly Phe Val Ser Ala Glu Gly Gly Thr Ser Cys Gln Asp Val
     1170                1175                    1180
Asp Glu Cys Ala Thr Thr Asp Pro Cys Val Gly Gly His Cys Val Asn
1185                1190                    1195                    1200
Thr Glu Gly Ser Phe Asn Cys Leu Cys Glu Thr Gly Phe Gln Pro Ser
               1205                1210                    1215
Pro Glu Ser Gly Glu Cys Val Asp Ile Asp Glu Cys Glu Asp Tyr Gly
          1220                1225                    1230
Asp Pro Val Cys Gly Thr Trp Lys Cys Glu Asn Ser Pro Gly Ser Tyr
          1235                1240                    1245
Arg Cys Val Leu Gly Cys Gln Pro Gly Phe His Met Ala Pro Asn Gly
     1250                1255                    1260
Asp Cys Ile Asp Ile Asp Glu Cys Ala Asn Asp Thr Met Cys Gly Ser
1265                1270                    1275                    1280
His Gly Phe Cys Asp Asn Thr Asp Gly Ser Phe Arg Cys Leu Cys Asp
               1285                1290                    1295
Gln Gly Phe Glu Ile Ser Pro Ser Gly Trp Asp Cys Val Asp Val Asn
          1300                1305                    1310
Glu Cys Glu Leu Met Leu Ala Val Cys Gly Ala Ala Leu Cys Glu Asn
          1315                1320                    1325
Val Glu Gly Ser Phe Leu Cys Leu Cys Ala Ser Asp Leu Glu Glu Tyr
     1330                1335                    1340
Asp Ala Gln Glu Gly His Cys Arg Pro Arg Gly Ala Gly Gly Gln Ser
1345                1350                    1355                    1360
Met Ser Glu Ala Pro Thr Gly Asp His Ala Pro Ala Pro Thr Arg Met
               1365                1370                    1375
Asp Cys Tyr Ser Gly Gln Lys Gly His Ala Pro Cys Ser Ser Val Leu
          1380                1385                    1390
Gly Arg Asn Thr Thr Gln Ala Glu Cys Cys Cys Thr Gln Gly Ala Ser
          1395                1400                    1405
Trp Gly Asp Ala Cys Asp Leu Cys Pro Ser Glu Asp Ser Ala Glu Phe
     1410                1415                    1420
Ser Glu Ile Cys Pro Ser Gly Lys Gly Tyr Ile Pro Val Glu Gly Ala
1425                1430                    1435                    1440
Trp Thr Phe Gly Gln Thr Met Tyr Thr Asp Ala Asp Glu Cys Val Ile
               1445                1450                    1455
Phe Gly Pro Gly Leu Cys Pro Asn Gly Arg Cys Leu Asn Thr Val Pro
          1460                1465                    1470
Gly Tyr Val Cys Leu Cys Asn Pro Gly Phe His Tyr Asp Ala Ser His
     1475                1480                    1485
Lys Lys Cys Glu Asp His Asp Glu Cys Gln Asp Leu Ala Cys Glu Asn
     1490                1495                    1500
Gly Glu Cys Val Asn Thr Glu Gly Ser Phe His Cys Phe Cys Ser Pro
1505                1510                    1515                    1520
Pro Leu Thr Leu Asp Leu Ser Gln Gln Arg Cys Met Asn Ser Thr Ser
               1525                1530                    1535
Ser Thr Glu Asp Leu Pro Asp His Asp Ile His Met Asp Ile Cys Trp
          1540                1545                    1550
Lys Lys Val Thr Asn Asp Val Cys Ser Glu Pro Leu Arg Gly His Arg
          1555                1560                    1565
Thr Thr Tyr Thr Glu Cys Cys Cys Gln Asp Gly Glu Ala Trp Ser Gln
     1570                1575                    1580
Gln Cys Ala Leu Cys Pro Pro Arg Ser Ser Glu Val Tyr Ala Gln Leu
1585                1590                    1595                    1600
```

```
Cys Asn Val Ala Arg Ile Glu Ala Glu Arg Glu Ala Gly Val His Phe
            1605                1610                1615
Arg Pro Gly Tyr Glu Tyr Gly Pro Gly Pro Asp Asp Leu His Tyr Ser
            1620                1625                1630
Ile Tyr Gly Pro Asp Gly Ala Pro Phe Tyr Asn Tyr Leu Gly Pro Glu
            1635                1640                1645
Asp Thr Val Pro Glu Pro Ala Phe Pro Asn Thr Ala Gly His Ser Ala
            1650                1655                1660
Asp Arg Thr Pro Ile Leu Glu Ser Pro Leu Gln Pro Ser Glu Leu Gln
1665                1670                1675                1680
Pro His Tyr Val Ala Ser His Pro Glu Pro Pro Ala Gly Phe Glu Gly
                1685                1690                1695
Leu Gln Ala Glu Glu Cys Gly Ile Leu Asn Gly Cys Glu Asn Gly Arg
            1700                1705                1710
Cys Val Arg Val Arg Glu Gly Tyr Thr Cys Asp Cys Phe Glu Gly Phe
            1715                1720                1725
Gln Leu Asp Ala Ala His Met Ala Cys Val Asp Val Asn Glu Cys Asp
            1730                1735                1740
Asp Leu Asn Gly Pro Ala Val Leu Cys Val His Gly Tyr Cys Glu Asn
1745                1750                1755                1760
Thr Glu Gly Ser Tyr Arg Cys His Cys Ser Pro Gly Tyr Val Ala Glu
                1765                1770                1775
Ala Gly Pro Pro His Cys Thr Ala Lys Glu
            1780                1785


<210> 3
<211> 79
<212> PRT
<213> Homo sapiens

<400> 3
Gln Arg Asp Pro Val Gly Arg Tyr Glu Pro Ala Gly Gly Asp Ala Asn
 1               5               10              15
Arg Leu Arg Arg Pro Gly Gly Ser Tyr Pro Ala Ala Ala Ala Ala Lys
            20              25              30
Val Tyr Ser Leu Phe Arg Glu Gln Asp Ala Pro Val Ala Gly Leu Gln
        35              40              45
Pro Val Glu Arg Ala Gln Pro Gly Trp Gly Ser Pro Arg Arg Pro Thr
    50              55              60
Glu Ala Glu Ala Arg Arg Pro Ser Arg Ala Gln Gln Ser Arg Arg
65                  70                  75


<210> 4
<211> 70
<212> PRT
<213> Homo sapiens

<400> 4
Gln Arg Asp Pro Val Gly Arg Tyr Glu Pro Ala Gly Gly Asp Ala Asn
 1               5               10              15
Arg Leu Arg Arg Pro Gly Gly Ser Tyr Pro Ala Ala Ala Ala Ala Lys
            20              25              30
Val Tyr Ser Leu Phe Arg Glu Gln Asp Ala Pro Val Ala Gly Leu Gln
        35              40              45
Pro Val Glu Arg Ala Gln Pro Gly Trp Gly Ser Pro Arg Arg Pro Thr
    50              55              60
Glu Ala Glu Ala Arg Arg
65                  70
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```
<210> 5
<211> 79
<212> PRT
<213> Homo sapiens

<400> 5
Gln Arg Asp Pro Val Gly Arg Tyr Glu Pro Ala Gly Gly Asp Ala Asn
 1               5                  10                  15
Arg Leu Arg Arg Pro Gly Gly Ser Tyr Pro Ala Ala Ala Ala Ala Lys
            20                  25                  30
Val Tyr Ser Leu Phe Arg Glu Gln Asp Ala Pro Val Ala Gly Leu Gln
        35                  40                  45
Pro Val Glu Arg Ala Gln Pro Gly Trp Gly Ser Pro Arg Arg Pro Thr
    50                  55                  60
Glu Ala Glu Ala Arg Arg Pro Ser Arg Ala Gln Gln Ser Arg Arg
65                  70                  75


<210> 6
<211> 45
<212> PRT
<213> Homo sapiens

<400> 6
Leu Arg Arg Pro Gly Gly Ser Tyr Pro Ala Ala Ala Ala Ala Lys Val
 1               5                  10                  15
Tyr Ser Leu Phe Arg Glu Gln Asp Ala Pro Val Ala Gly Leu Gln Pro
            20                  25                  30
Val Glu Arg Ala Gln Pro Gly Trp Gly Ser Pro Arg Arg
        35                  40                  45


<210> 7
<211> 13
<212> PRT
<213> Homo sapiens

<400> 7
Arg Pro Gly Gly Ser Tyr Pro Ala Ala Ala Ala Ala Lys
 1               5                  10


<210> 8
<211> 20
<212> PRT
<213> Homo sapiens

<400> 8
Val Tyr Ser Leu Phe Arg Glu Gln Asp Ala Pro Val Ala Gly Leu Gln
 1               5                  10                  15
Pro Val Glu Arg
            20


<210> 9
<211> 14
<212> PRT
<213> Homo sapiens

<400> 9
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Glu Gln Asp Ala Pro Val Ala Gly Leu Gln Pro Val Glu Arg
 1   5   10

<210> 10
<211> 9
<212> PRT
<213> Homo sapiens

<400> 10
Ala Gln Pro Gly Trp Gly Ser Pro Arg
 1   5